

86. (New) The method of claim 83 wherein the first conductive layer comprises at least one of tungsten nitride, polysilicon, tungsten, copper, and aluminum.

87. (New) The method of claim 84 wherein the dielectric comprises tantalum pentoxide.

88. (New) The method of claim 83 wherein the second conductive layer comprises tungsten nitride.

89. (New) The method of claim 88 further comprising providing a third conductive layer on the second conductive layer.

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end  
90. (New) The method of claim 89 wherein the third conductive layer comprises copper.

91. (New) The method of claim 83 wherein exposing the conductive material comprises exposing the conductive material to at least one material in the recited group under process conditions comprising:

- a flow rate of the material of about 2 sccm to about 400 sccm;
- a flow rate of about 50 sccm to about 100 sccm for an inert carrier gas;
- a temperature ranging from about 150 to about 600 degrees Celsius;
- a pressure ranging from about 50 millitorr to about 760 torr; and
- a process time ranging from about 50 to about 500 seconds.

92. (New) The method of claim 91 wherein the inert carrier gas comprises He or Ar.--

#### REMARKS

Claims 54-56 and new claims 76-92 are currently pending in the present patent application. In an office action mailed January 9, 2003, the Examiner rejected claims 54-56 under 35 U.S.C. § 102 (e) as being anticipated by United States Patent Number 6, 017,818 to Lu

("Lu"), and rejected claim 55 under the second paragraph of 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The amendments to claim 54 eliminates any deficiencies under Section 112, and thus the rejection of claim 55 under this section should be withdrawn.

In the rejection of claims 54-56 as being anticipated by Lu, the Examiner relies on Lu for disclosing a conductive layer to "diborane," which was one of the materials in the group recited in the prior claims. All pending claims do not include the recitation of diborane in the recited groups of materials, and for at least this reason the pending claims are allowable. Moreover, none of the references of record discloses the group of materials recited in each of the amended claims, namely phosphine and methylsilane. Accordingly, these amendments place the case in condition for allowance, with the combinations of elements recited in each of these claims being allowable. Although the amendments narrow the scope of claim 54, this does not mean that all equivalents to the recited materials in the amended groups are precluded from the scope of the amended claims under the doctrine of equivalents.

All pending claims are in condition for allowance, and favorable consideration and a Notice of Allowance are respectfully requested. The Examiner is requested to contact the undersigned at the number listed below for a telephone interview if, upon consideration of this amendment, the Examiner determines any pending claims are not in condition for allowance. The undersigned also requests the Examiner to direct all future correspondence to the address set forth below in the event the Examiner shows a different correspondence address for the attorney of record.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with Markings to Show Changes Made"**.

Respectfully submitted,  
DORSEY & WHITNEY LLP

Paul F. Rusyn  
Registration No. 42,118

PFR:asw

Enclosures:

Postcard  
Check  
Fee Transmittal Sheet (+ copy)  
Request for Continued Examination (RCE)

1420 Fifth Avenue, Suite 3400  
Seattle, Washington 98101-4010  
(206) 903-8800 (telephone)  
(206) 903-8820 (fax)

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

**In the Claims:**

Claims 54 and 56 have been amended as follows:

54. (Twice Amended) A method of forming a semiconductor device, comprising:

providing a first conductive layer;

preventing at least some oxygen from migrating in relation to said first conductive layer by exposing the first conductive layer to a material selected from the group consisting of [diborane,] phosphine and methylsilane[, hydrochloric acid, and boron trichloride]; and

providing a second conductive layer [on] adjacent the first conductive layer after exposure of the first conductive layer to the material selected from the group.

56. (Amended) The method in claim 54, wherein said method further comprises providing [a] the second conductive layer onto said first conductive layer; and wherein said step of preventing at least some oxygen from migrating comprises preventing at least some oxygen from migrating from said first conductive layer to said second conductive layer.